

App #: 10-708515

**EAST SEARCH HISTORY**

Databases: US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM\_TDB

Ref#	Hits	Search Text
S1	1	10/708515
S2	3	circuit and photomask and (bisector or "bi-sector") and voronoi
S3	20	circuit and (bisector or "bi-sector") and voronoi
S4	4	circuit and photomask and voronoi
S5	273	circuit and voronoi
S6	172	circuit and voronoi and segment\$6
S7	53	S6 and @pd<"20030309"
S8	1200	(382/187).CCLS.
S10	72	sub-resolution assist feature
S11	62	S10 and circuit
S9	2	S8 and voronoi
S12	144	("sub-resolution assist feature" or SRAF) and circuit
S13	3	S12 and voronoi
S15	18	("5229255"   "5242770"   "5256505"   "5288569"   "5324600"   "5362584"   "5424154"   "5436095"   "5447810"   "5538815"   "5663893"   "5698347"   "5707765"   "5723233"   "5821014"   "5827623"   "6114071"   "6114095").PN.
S16	0	S15 and sraf
S17	7	(US-20040068712-\$ or US-20020001758-\$).did. or (US-5491641-\$ or US-5880970-\$ or US- 6178539-\$ or US-6317859-\$ or US-6335130-\$).did.
S18	1	S17 and sraf
S22	4	("5773315"   "5777901"   "6044208"   "6066179").PN.
S14	14	S12 and @pd<"20030309"
S19	3	S17 and (sraf or "sub-resolution assist")
S20	8	S12 and @pd<"20040309" not S14
S21	4	S6 and @pd<"20040309" not S7
S24	58	photomask and (sraf or "sub-resolution assist feature")
S23	2	("7200835").PN.
S30	171	circuit and photomask and ((scatter\$3 or intensity or assist) adj2 bars)
S36	1	("6178539").PN.
S43	57	((scatter\$3 or intensity or assist) adj2 bars) same remov\$3)
S46	34	circuit and (((scatter\$3 or intensity or assist) adj2 bars) same contact\$3)
S28	1	circuit and photomask and (scatter\$3 adj bars) and voronoi
S25	9	(US-20040068712-\$ or US-20020001758-\$ or US-20040005089-\$).did. or (US-6317859-\$ or US- 6178539-\$ or US-5491641-\$ or US-5880970-\$ or US-6541167-\$ or US-6335130-\$).did.
S35	41	circuit and ((scatter\$3 or intensity or assist) adj2 bars) and (vertices or vertex)
S31	60	S30 and @pd<"20040309"
S34	94	S33 and @pd<"20040309"
S29	1	circuit and photomask and ((scatter\$3 or intensity or assist) adj2 bars) and voronoi
S27	1	S26 and voronoi
S50	76	circuit and ((SRAF or "assist features") same (extend\$3 or connect\$3 or lengthen or widen or broaden or enlarge))
S26	5	S25 and photomask and circuit and ("assist feature" or sraf)
S33	225	circuit and ((scatter\$3 or intensity or assist) adj2 bars) and (vertic\$2 or vertex)

S45	5	circuit and (((scatter\$3 or intensity or assist) adj2 bars) same expand\$3)
S48	66342	(GORDON adj RONALD) or (LVOV adj ALEXEY) or (MANSFIELD adj SCOTT) or (MUKERJEE adj MAHARAJ) or (PAPADOPOULOU adj EVANTHIA) or ("INTERNATIONAL BUSINESS MACHINES CORPORATION" or IBM).asnm.
S44	2	("6838212").PN.
S47	6	circuit and (((scatter\$3 or intensity or assist) adj2 bars) same (lengthen or widen or broaden or enlarge))
S41	4	circuit and (((scatter\$3 or intensity or assist) adj2 bars) same connect)
S49	7	S48 and (photomask and circuit and (((scatter\$3 or intensity or assist) adj2 bars) or SRAF or "assist features")).clm.
S42	104	(((scatter\$3 or intensity or assist) adj2 bars) same connect\$3)
S32	2	("6114071").PN.
S40	3	circuit and (((scatter\$3 or intensity or assist) adj2 bars) same extend\$3 same connect)
S38	37	circuit and (((scatter\$3 or intensity or assist) adj2 bars) same extend\$3)
S39	10	("5663893"   "5682323"   "5705301"   "5707765"   "5821014"   "6139994"   "6175953"   "6210841"   "6413683"   "6453457").PN.
S37	4	("5773315"   "5777901"   "6044208"   "6066179").PN.
S52	18	( "5663893" or "5821014" or "6413683" or "6425117" or "6523162" or "6602728" or "20020045106" or "20020192575" or "20030061592" ).pn.
S53	22	S51 or S52
S51	4	10/338575 or "10/378579"

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**GOOGLE SCHOLAR SEARCH**

sraf -patent circuit  
"sub-resolution assist feature" -patent  
"sub-resolution assist feature" -patent circuit  
"sub-resolution assist feature" circuit  
"sub-resolution assist feature" -patent  
"sub-resolution assist feature"  
sraf -patent circuit voronoi  
sraf -patent voronoi  
voronoi -patent circuit  
voronoi -patent circuit photomask